

REMARKS

Claims 17 - 29 are pending in the application.

Appropriate headings have been added to the specification, and claims from the literal translation have been replaced by claims drafted in conformity with U.S. Patent practice.

The application in its amended state is believed to be in condition for allowance. However, should the Examiner have any comments or suggestions, or wish to discuss the merits of the application, the undersigned would very much welcome a telephone call in order to expedite placement of the application into condition for allowance.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE:

Beginning on page 9, line 8, through page 10, line 6, please replace the entire existing paragraph with the following:

--The outlet opening 16 is surrounded by a drying chamber 32 that is mounted on the outer periphery of the container body 14 and has an integrated collecting trough. The drying chamber 32 has an opening 33 through which the wafer 3 can be moved. Provided within the drying chamber [33] 32 are nozzles 34,35 via which a fluid, which reduces the surface tension of the treatment fluid, can be introduced into the region of the outlet opening 16. A fluid that is suitable as a surface tension reducing fluid is, for example, IPA, a hot gas such as hot N₂, etc. The fluid that reduces the surface tension of the treatment fluid is directed via the nozzles 34,35 in a precise manner upon a meniscus formed between the treatment fluid 20 and the wafer 3 in order at this location to achieve a good drying pursuant to the Marangoni principle. Alternatively, the meniscus could also be heated in some other way, for example with a laser, in order in this region to achieve a reduction of the surface tension. Figure 2 shows an enlarged detailed view of the drying chamber 32, whereby for the sake of simplifying illustration the nozzles 34,35 have been left out. As can be recognized from Figure 2, provided in a lower half of the drying chamber 32 is a needle-shaped element 36 that serves as a drip catcher. At the rear edge of the wafer the drying process via the Marangoni effect during discharge from the chamber is critical, and it is possible for dense fluid to adhere to the wafer and to form a drop. This drop is, however, drawn off by the drip catcher [37] 36, which is positioned at a slight distance, for example > 1 millimeter, from the wafer and at the center thereof.--



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17. An apparatus for treating substrates, comprising:

at least one essentially closed process container, which is disposed in a gas atmosphere, contains a treatment fluid and has at least two continuously open openings for a linear guidance of substrates through said at least one process container;

an essentially closed overflow container that is mounted on said at least one process container and has an overflow means disposed above said openings of said at least one process container;

an inlet means for treatment fluid, wherein said inlet means is disposed below said openings of said at least one process container; and

a device for generating an underpressure in said at least one process container.

18. An apparatus according to claim 17, wherein a height of said overflow means is adjustable.

19. An apparatus according to claim 17, wherein an essentially horizontally disposed diffuser plate is provided in said at least one process container.

20. An apparatus according to claim 17, wherein a collecting trough is mounted on an outer periphery of said at least one process container below at least one of said openings thereof.

21. An apparatus according to claim 20, wherein a drip catcher is disposed in said collecting trough.

22. An apparatus according to claim 17, wherein at least one ultrasonic unit is provided within said at least one process container.

23. An apparatus according to claim 22, wherein said at least one ultrasonic unit extends over the entire width of said at least one process container.

24. An apparatus according to claim 22, wherein said at least one ultrasonic unit is beveled on a rear side thereof in order to provide an aerodynamic shape.

25. An apparatus according to claim 22, wherein at least two ultrasonic units are provided that face one another, and wherein at least one respective ultrasonic unit is disposed above and below a level of said openings respectively so that a substrate is movable between said ultrasonic units.

26. An apparatus according to claim 17, wherein a drying chamber is provided that surrounds an outlet opening of said at least one process container, and wherein said drying chamber is provided with a device for introducing a fluid that reduces a surface tension of said treatment fluid.

27. An apparatus according to claim 17, wherein a plurality of process containers are disposed one after another.

28. An apparatus according to claim 27, wherein means are provided for introducing different treatment fluids into said process containers.

29. An apparatus according to claim 27, wherein a respective wetting unit is disposed between each two process containers.

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